AMENDMENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

In the claims:

1-7. (Cancelled).

8. (Withdrawn) A method for determining which cytosolic accessory proteins interact with a given membrane protein, or vice versa, said method comprising the steps of:

(i) providing an array of candidate cytosolic accessory proteins free of their membrane protein components or other subunits with which they are normally complexed from one or more cytosolic accessory protein families of interest;

(ii) contacting the array with cytosolic fragments of said membrane protein and/or cytosolic fragments of other related membrane protein family members;

and

(iii) detecting and identifying the interacting partners.

9. (Withdrawn) A method for screening compounds or peptides or proteins for the ability to interact selectively with a cytosolic accessory protein, said method 15 comprising the steps of:

(i) providing an array of cytosolic accessory proteins free of their membrane protein components or other subunits with which they are normally complexed from one or more cytosolic protein families of interest;

(ii) contacting the array with compounds or peptides or proteins; and

(iii) identifying the interacting partners.

10. (Withdrawn) A method as claimed in claim 9, which method comprises the

additional step (iv) of quantitating the interaction of the interacting partners.

11. (Withdrawn) A method for screening compounds or peptides or proteins for the ability to selectively modulate the interaction between a cytosolic accessory protein and a membrane protein, said method comprising the steps of

(i) providing an array of cytosolic accessory proteins free of their membrane protein components or other subunits with which they are normally complexed from one or more cytosolic protein families of interest;

(ii) contacting the array with compounds or peptides or proteins and with 5 one or more membrane proteins or cytosolic fragments thereof of interest, either simultaneously or in sequence; and

(iii) determining whether said interaction is modulated by the presence of said compounds or peptides or proteins.

12. (Withdrawn) A method as claimed in claim 11, said method comprising the additional step (iv) of quantitating the degree of modulation of the interaction.

13. (Withdrawn) The use of an array of cytosolic accessory proteins as defined in any one of claims 1 to 7 to measure the relative catalytic activity of different members of a family of accessory proteins.

14. (Withdrawn) The use of an array of cytosolic accessory proteins as defined in any one of claims 1 to 7 as an affinity surface on which to select antibodies from a library of phenotype-genotype-linked antibodies (e.g. phage displayed antibodies).

15. (Withdrawn) The use of an array of cytosolic accessory proteins as defined in any one of claims 1 to 7 for determining the effect of post-translational modifications on the interactions of accessory proteins with membrane proteins and/or on the properties of said membrane proteins.

16. (Currently Amended) A <u>non-cell based</u> array comprising a surface having attached

thereto at least one immobilized functional cytosolic accessory protein of a membrane protein selected from ion channels, G protein coupled receptors and transmembrane transporter proteins, wherein said cytosolic accessory protein is free from membrane protein components or other subunits of said ion channel, G protein coupled receptor or transmembrane transporter protein complex.

17. (Previously Presented) An array as claimed in claim 16, comprising a plurality of cytosolic accessory proteins selected from ion-channel subunits, G protein coupled receptor cytosolic accessory proteins, transmembrane transporter cytosolic accessory proteins, K^+-channel β-subunits, Ca^{2+}-channel β-subunits, G protein subtypes, Kv channel β-subunits, Calcium channel β-subunits, Gs family, Gt family, Gi family, Gi-0 family, Gq-11 family, Gα-sensory family and βγ family proteins.

18. (Previously Presented) An array as claimed in claim 16, comprising a plurality of cytosolic accessory proteins which are identical and are selected from ion-channel subunits, G protein coupled receptor cytosolic accessory proteins, transmembrane transporter cytosolic accessory proteins, K^+-channel β-subunits, Ca^{2+}-channel β-subunits, G protein subtypes, Kv channel β-subunits, Calcium channel β-subunits, Gs family, Gt family, Gi family, Gi-0 family, Gq-11 family, Gα-sensory family and βγ family proteins.

19. (Previously Presented) An array as claimed in claim 17 or 18, wherein the array comprises at least one K+-channel β-subunit selected from: β1.1, β1.2, β1.3, β2.1, β2.2, β3.1, β3.2 and β4.

20. (Withdrawn - Previously Presented) An array as claimed in claim 17 or 18, wherein the array comprises at least one calcium channel β-subunit selected from: β1a, β1b, β1c, β2a, β2b, β2c, β3a, β3b and β4.

21. (Previously Presented) An array as claimed in claim 16, wherein the cytosolic accessory protein is an ion channel subunit domain.

22. (Previously Presented) An array as claimed in claim 16, wherein cytosolic accessory protein subunits are provided as tagged protein constructs.

23. (Previously Presented) An array as claimed in claim 16, wherein the cytosolic accessory protein is an ion channel subunit domain provided as tagged protein construct.

24. (Previously Presented) An array as claimed in claim 22 or 23, wherein the tagged protein construct comprises an affinity tag.

25. (Previously Presented) An array as claimed in claim 24, wherein the tag is a His, biotin, FLAG, myc, or VSV tag.

26. (Previously Presented) An array as claimed in claim 16, wherein the protein moieties are attached to the surface via a common marker moiety.

27. (Previously Presented) An array as claimed in claim 16, wherein each position in the array contains one or more copies of a single protein type in the form of a monomer, dimer, trimer, tetramer or high multimer.